

## **AMENDMENTS TO THE CLAIMS**

This listing of claims will replace all prior versions, and listings, of claims in the application:

### **Listing of Claims:**

1           1.       (Currently Amended) A method for invalidating resource records  
2       in a local cache at a client computer system within a network, comprising:  
3           receiving a multicast message from ~~a second~~ another client querying a  
4       device;  
5           locating a resource record associated with the device;  
6           waiting for a multicast response from the device to the multicast  
7       ~~query~~ message querying the device; and  
8           when a predetermined number of multicast messages from ~~the second~~ the  
9       ~~other~~ other client querying the device have been received without receiving a  
10       ~~multicast~~ the multicast response from the device to ~~the second~~ the other client,  
11       invalidating the resource record associated with the device.

1           2-4.   (Canceled).

1           5.       (Previously Presented) The method of claim 41, wherein if the  
2       response to the issued query is not received in a pre-determined amount of time,  
3       the method further comprises:  
4           retrieving a parent record of the resource record at the client, wherein the  
5       parent record refers to the resource record;  
6           issuing a query for the parent record;  
7           waiting for a response to the query from the device; and

8 if the response to the query is not received in a pre-determined amount of  
9 time, invalidating the parent record, and then repeating the above process by  
10 applying it recursively to any records that refer to the now-invalidated parent  
11 record.

1 6. (Previously Presented) The method of claim 41, wherein if the  
2 response to the issued query is not received in a pre-determined amount of time,  
3 the method further comprises:  
4 retrieving a parent record of the resource record at the client, wherein the  
5 parent record refers to the resource record;  
6 issuing a query for the parent record;  
7 receiving a response to the query from the device, wherein the response  
8 includes information for updating the resource record; and  
9 updating the resource record with the information received in the  
10 response.

1 7. (Original) The method of claim 6, wherein the method further  
2 comprises updating the parent record with the information received in the  
3 response.

1 8. (Previously Presented) The method of claim 41, wherein the  
2 resource records are retrieved and the queries are issued at a pre-specified time  
3 interval.

1 9. (Currently Amended) A computer-readable storage medium  
2 storing instructions that when executed by a computer cause the computer to  
3 perform a method for invalidating resource records in a local cache at a client  
4 computer system within a network, the method comprising:

5 receiving a multicast message from ~~a second~~ another client querying a  
6 device;  
7 locating a resource record associated with the device;  
8 waiting for a multicast response to the multicast ~~query~~ message querying  
9 the device; and  
10 when a predetermined number of multicast messages from ~~the second~~ the  
11 other client querying the device have been received without receiving a  
12 ~~multicast~~ the multicast response from the device to ~~the second~~ the other client,  
13 invalidating the resource record associated with the device.

1 10-12. (Canceled).

1 13. (Previously Presented) The computer-readable storage medium of  
2 claim 42, wherein if the response to the issued query is not received in a pre-  
3 determined amount of time, the method further comprises:  
4 retrieving a parent record of the resource record at the client, wherein the  
5 parent record refers to the resource record;  
6 issuing a query for the parent record;  
7 waiting for a response to the query from the device; and  
8 if the response to the query is not received in a pre-determined amount of  
9 time, invalidating the parent record, and then repeating the above process by  
10 applying it recursively to any records that refer to the now-invalidated parent  
11 record.

1 14. (Previously Presented) The computer-readable storage medium of  
2 claim 42, wherein if the response to the issued query is not received in a pre-  
3 determined amount of time, the method further comprises:  
4 retrieving a parent record of the resource record at the client, wherein the  
5 parent record refers to the resource record;

6           issuing a query for the parent record;  
7           receiving a response to the query from the device, wherein the response  
8 includes information for updating the resource record; and  
9           updating the resource record with the information received in the  
10 response.

1           15.    (Original) The computer-readable storage medium of claim 14,  
2 wherein the method further comprises updating the parent record with the  
3 information received in the response.

1           16.    (Previously Presented) The computer-readable storage medium of  
2 claim 42, wherein the resource records are retrieved and the queries are issued at  
3 a pre-specified time interval.

1           17.    (Currently Amended) An apparatus that invalidates resource  
2 records in a local cache at a client computer system within a network, comprising:  
3           an invalidation mechanism configured to:  
4                receive a multicast message from ~~a second~~ another client querying  
5                a device;  
6                receive a resource record associated with the device from the  
7                retrieval mechanism in response to receiving the multicast message;  
8                wait for a multicast response to the multicast ~~query~~ message  
9                querying the device; and  
10               when a predetermined number of multicast messages from ~~the~~  
11               ~~second~~ the other client querying the device have been received without  
12               receiving ~~a multicasted~~ the multicast response from the device to ~~the~~  
13               ~~second~~ the other client, invalidate the resource record associated with the  
14               device.

1 18-20. (Canceled).

1 21. (Previously Presented) The apparatus of claim 43, wherein if the  
2 response to the issued query is not received in a pre-determined amount of time,  
3 the invalidation mechanism is additionally configured to:  
4 retrieve a parent record of the resource record at the client, wherein the  
5 parent record refers to the resource record;  
6 issue a query for the parent record;  
7 wait for a response to the query from the device; and  
8 if the response to the query is not received in a pre-determined amount of  
9 time, to invalidate the parent record, and to then repeat the above process by  
10 applying it recursively to any records that refer to the now-invalidated parent  
11 record.

1 22. (Previously Presented) The apparatus of claim 43, further  
2 comprising an updating mechanism, wherein if the response to the issued query is  
3 not received in a pre-determined amount of time, the updating mechanism is  
4 configured to:  
5 retrieve a parent record of the resource record at the client, wherein the  
6 parent record refers to the resource record;  
7 issue a query for the parent record;  
8 receive a response to the query from the device, wherein the response  
9 includes information for updating the resource record; and to  
10 update the resource record with the information received in the response.

1 23. (Original) The apparatus of claim 22, wherein the updating  
2 mechanism is additionally configured to update the parent record with the  
3 information received in the response.

1           24.     (Previously Presented) The apparatus of claim 43, wherein the  
2     invalidation mechanism is configured to retrieve resource records and issue  
3     queries at a pre-specified time interval.

1           25–34. (Canceled).

1           35.     (Previously Presented) The method of claim 1 wherein invalidating  
2     the resource record further comprises invalidating a child resource record of the  
3     resource record.

1           36.     (Previously Presented) The computer-readable storage medium of  
2     claim 9, wherein invalidating the resource record further comprises invalidating a  
3     child resource record of the resource record.

1           37.     (Previously Presented) The apparatus of claim 17, wherein  
2     invalidating the resource record further comprises invalidating a child resource  
3     record of the resource record.

1           38-40. (Canceled).

1           41.     (Previously Presented) The method of claim 1, wherein the method  
2     further comprises:  
3         retrieving a resource record from the local cache at the client computer  
4     system;  
5         issuing one or more queries for the resource record at the client computer  
6     system;  
7         waiting for a response to the query at the client computer system; and

8           if the response to the query is not received in a pre-determined amount of  
9   time and after issuing a predetermined number of queries for the resource record,  
10   invalidating the resource record at the client computer system

1           42.   (Previously Presented) The computer-readable storage medium of  
2   claim 9, wherein the method further comprises:  
3           retrieving a resource record from the local cache at the client;  
4           issuing one or more queries for the resource record;  
5           waiting for a response to the query; and  
6           if the response to the query is not received in a pre-determined amount of  
7   time and after issuing a predetermined number of queries for the resource record,  
8   invalidating the resource record at the client.

1           43.   (Previously Presented) The apparatus of claim 17, wherein the  
2   apparatus further comprises:  
3           a retrieval mechanism at the client configured to retrieve a resource record  
4   from the local cache at the client, wherein the invalidation mechanism is  
5   configured to:  
6           issue one or more queries for the resource record,  
7           wait for a response to the query, and  
8           if the response to the query is not received in a pre-determined  
9   amount of time and after issuing a predetermined number of queries for  
10   the resource record, invalidate the resource record at the client.